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CERTIFYING FINANCIAL SOPHISTICATION IN THE NEW ACCREDITED INVESTOR MODERNIZATION RULES

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Abstract

The recent expansion of the accredited investor definition by the United States Securities and Exchange Commission (Commission) offers a path for the non-wealthy to be tested and certified as “accredited investors” to participate in the private markets - particularly the funding of new ideas and entrepreneurs. The first question revolves around the level of “financial sophistication” a person must demonstrate to meet the Commission’s threshold and, thus, be allowed to “fend for oneself” in the private markets. This paper argues that financial sophistication is not a single criterion but a compilation of behaviors and proposes the Five Factors of Financial Sophistication. The Five Factors work to exceed the assumed behaviors

underlying the Commission's current Financial Means Test. A second question to be considered by the Commission is: “Which pedagogy is most effective at teaching and testing for the Five Factors”? Research demonstrates that simulation-based learning offers a pedagogy superior to all other forms, as persons can experience deep learning by understanding the financial behaviors that makeup sophistication without taking on real financial risk. An approved accredited investor certification program offers the Commission an unprecedented opportunity to bring financial sophistication education into a pseudo-regulated environment upon which new and innovative programs can be offered to keep pace with the speed of the markets.

About Doriot(R)

Doriot is a financial education company founded on the principle that everyone should have an equal opportunity to invest in the private markets, not just the wealthy and elite. According to the Board of Governors of the Federal Reserve System, the wealthiest **1** percent of households currently hold **32.1** percent of the total wealth, up from **23.4** percent in 1989. In addition, the top **10** percent of households owned \$70 of every \$100 in household wealth, up from \$61 in 1989. The bottom half, whose share never exceeded 5 percent, now holds just 2 percent of household wealth.

Given that offerings (and returns) in the private markets are outpacing the public markets, access to the private markets (fractional ownership in private companies in particular) is critical for investors ages 18-35

in light of their long-term time horizons and ability to absorb risk. Unfortunately, only **3%** of this investor class currently qualifies as accredited under the Financial Means Test. Doriot’s mission is to bring retail investors at or above the level of sophistication “assumed” under the Financial Means Test and continue to educate them on changing dynamics of the private markets so that they can safely participate in vetted, unregistered offerings with confidence.

Doriot’s sophisticated investor certification product, Fantasy Startup(R), is a high-fidelity simulation that tests and certifies the Five Factors of Financial Sophistication in private investing. In March 2021, a 64-page proposal was submitted to the Commission for approval under the new Accredited Investor Modernization Rules.

About the Author

Gerry Hays is an award-winning practicing professor of Venture Capital and Entrepreneurial Finance at the Indiana University Kelley School of Business. During his 17-year teaching career, Hays created no-code simulations to teach the discipline of startup investing and entrepreneurship. Fantasy Startup(R) was born from these in-class simulations. Hays also authored the First-Time Founder's Equity Bible, a 5-star rated book on Amazon that teaches how equity capital works.

Hays founded five companies outside academia, leading three of them to successful exits. He has invested in 25+ startups and has mentored dozens of entrepreneurs and investors.

And, in 1996, at the age of 25, he paid the "Fool's Tax" by investing his life savings (\$25,000) into a single startup that failed.

Hays previously served in various Government and Legislative Affairs positions, including the American Automobile Manufacturers Association, Indiana Chamber of Commerce, Indiana Department of Environmental Management, and the Honorable Governor Evan Bayh's office.

Hays earned a BA in Political Science from Indiana University and a JD from Indiana University McKinney School of Law.

Summary

The United States Securities and Exchange Commission (Commission) delineated the "accredited investor" as a safeguard mechanism to protect investors not deemed financially sophisticated enough to protect themselves from unscrupulous unregistered offerings. This definition is important because investors who fall under the definition of "accredited" can invest in hedge funds, venture funds, angel syndications, and unregistered offerings by private companies. Less than 3% of persons aged 18-35 qualify as accredited investors utilizing the Financial Means Test (FMT), economically discriminating against those that can most benefit by long-term patient participation in the private markets. The FMT is built upon the assumption that wealthy persons have the financial sophistication to participate in private offerings, backed up by a 2009 study of Swedish households. This paper argues for a more rigorous definition of financial sophistication (Five Factors of Financial Sophistication) that expands beyond the behaviors found in the 2009 study and research supporting the use of simulation tools to test and certify for the Five Factors.

History

Following the Market Crash of 1929, Congress adopted the Securities Act of 1933, requiring any company or startup seeking to offer or sell securities to the public to register the offering with the US Securities and Exchange Commission (Commission). However, an exemption was created for companies or startups raising capital exclusively from “particular persons”.¹ An example of a “particular person” might be a “special relationship” amongst executive officers.²

The Commission’s interpretation of this exemption was later litigated in *SEC v. Ralston Purina*, in which the Supreme Court determined the exemption should be based on whether the affected purchasers require protection. “An offering to those shown to be able to fend for themselves in a transaction” does not constitute a public offering.³ Additionally, the Court suggested circumstances may warrant treating an offering to a particular class of persons (i.e., sophisticated investors) with access to similar information as would be made available in a registered offering.³

In 1980, to encourage investments in startups and small businesses, Congress authorized the Commission to define “accredited investors” based on certain factors such as a person’s “financial sophistication, net worth, knowledge, and experience in financial matters, or amount of assets under management.”⁴ The Commission subsequently promulgated Rule 501(a) of Regulation D and, in addition to adding certain entities to the statutory definition of accredited investors, outlined “categories” of natural persons who also qualify as accredited.

The Commission designed the FMT to objectively assess whether a person is accredited. Persons are considered accredited if their “income exceeds \$200,000 in each of the two most recent years (or \$300,000 in joint income with a person’s spouse) and they reasonably expected to reach the same income level in the current year” and/or “if their net worth exceeds \$1 million (individually or jointly with a spouse), excluding the value of their primary residence”.⁵ The FMT has since become the dispositive criteria for issuers to screen purchasers.

It’s interesting to note that Rule 506 also permits issuers to raise capital from up to thirty-five (35) “non-accredited” purchasers (without a cap on investment size). Issuers are tasked with determining that non-accredited purchasers have the *requisite expertise to evaluate the risks and merits of the proposed investment*.⁶ The “non-accredited” exemption is highly subjective, and there is little guidance from the Commission regarding the criteria an issuer might utilize in making a determination.

Limitations of the FMT

The FMT, who created with the idea of protecting those that cannot fend for themselves, is arguably one of the most economically discriminatory regulations in place today. For example, under the FMT, **97%** of persons ages 18-34 do not qualify and, as such, are prohibited from speculating on entrepreneurs and startups, while the vast majority of accredited investors are aged 50-70 (Fig. 1).⁷ Paradoxically, early-stage investing requires a higher tolerance for risk and longer time horizons. The longer the time horizon, the more aggressive or riskier a portfolio an investor can build. The shorter the time horizon, the more conservative or less risky the portfolio the investor may want to adopt. Thus, the investor classes with the longest time horizons are excluded from taking advantage of an asset class that requires long time horizons.

Beyond age, the FMT denies multiple underrepresented communities equitable investment privileges. For example, when looking at the current demographics of Angel Investors, only **22%** are female, **1.3%** are Black, and **2.8%** are Latino.⁸ Investor redlining resulting from the FMT has real and adverse consequences on underrepresented founders' ability to secure funding for their startups, a serious issue that goes beyond the scope of this paper and deserves its own discussion.⁹

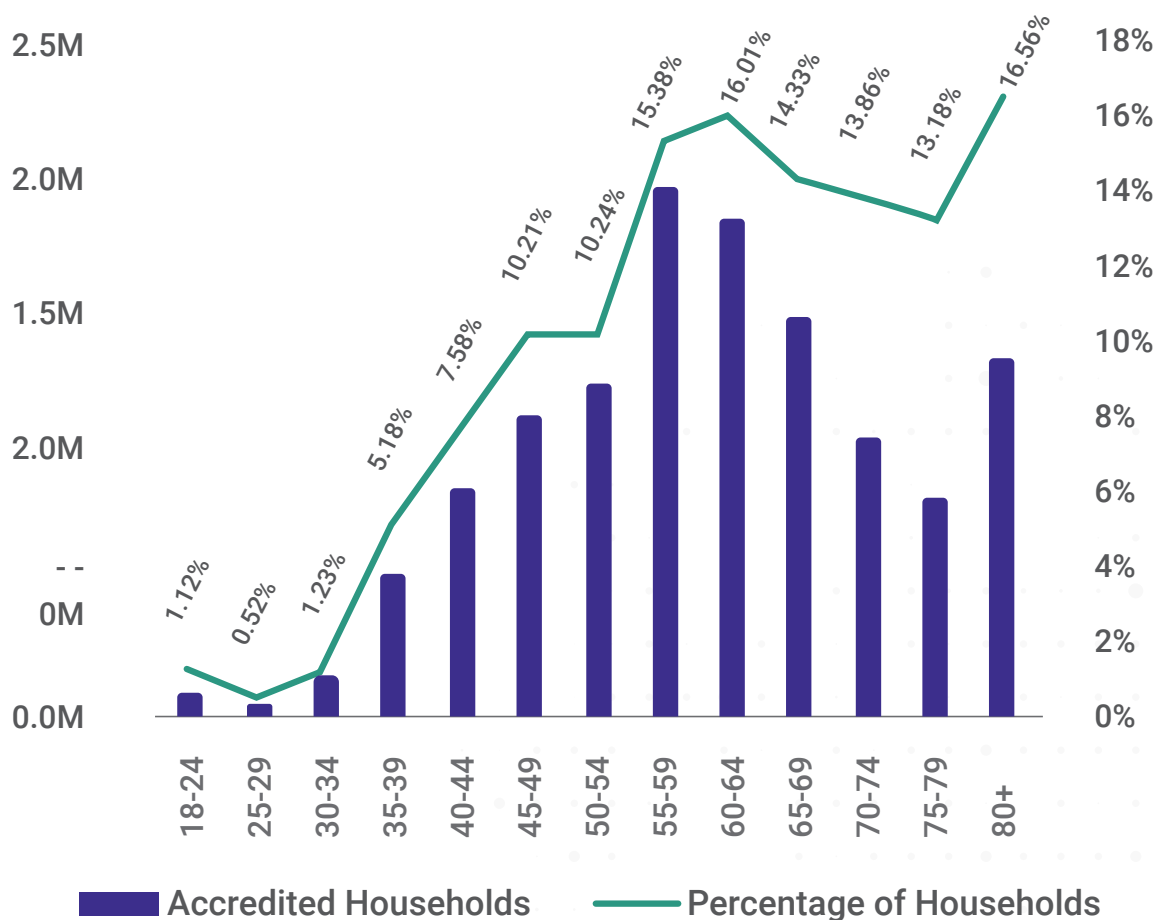


Figure 1. Description of Graph⁷

According to the Commission, applying an FMT is “to encompass those persons whose financial sophistication and ability to sustain the risk of loss of investment or fend for themselves render the protections of the Securities Act’s registration process unnecessary.”¹⁰ In their assessment of the accredited investor definition, the Commission points to an academic study that offers a correlation between wealth and financial sophistication. The 2009 study utilizing the entire population of Sweden concluded that “richer, better-educated households tend to be more [financially] diversified.”¹⁰ However, other studies offer clarity around these assumptions. **For example:**



Older accredited investors have lower financial sophistication than younger accredited investors due to decreasing levels of cognition over time.¹¹



A FINRA Investor Education Foundation study found that older adults who are overconfident in their financial knowledge tend to have riskier financial behavior.¹²

An April 2021 survey of 1,400 American stock investors aged 18-40 by the Motley Fool found that “**95%** of Gen Z and millennial investors think about risk when investing” and “**64%** believe a strong portfolio should be composed of 10 or more stocks”.¹³

A 2021 study by Morningstar determined that the majority of Americans, regardless of age, income, and education groups, show biases of present bias (the tendency to overvalue smaller rewards in the present at the expense of long-term goals), loss aversion, (the tendency to be excessively fearful of experiencing losses relative to gains) overconfidence, (the tendency to overweight one’s abilities or information when making an investment decision), and base rate neglect (the tendency to erroneously judge the likelihood of a situation by not taking into account all relevant data).¹⁴ These biases adversely affect the financial decision-making of all investor classes, including the wealthy.

Second, the FMT is built upon an assumption that the wealthy can access credible financial advisors before making investment decisions. However, a 2012 study found that financial advisors may not mitigate the behavioral biases of retail investors and may even exacerbate them, noting that very little is known about the market for financial advice.¹⁵

Third, no amount of sophistication will protect investors from unscrupulous financial behavior short of their own investing disciplines. This reality was exposed in the Madoff Ponzi scheme in which all investors were considered sophisticated as measured by FMT and whose products were mostly sold through financial advisors. In fact, some of the most sophisticated investors that routinely evaluate unregistered offerings still invest millions (and billions) in attractively presented investment opportunities that ultimately prove to be vapor (i.e., WeWork, Theranos, Juicero).

In summary, the FMT offers a false sense of security that, by virtue of having money, wealthy individuals can “fend for themselves” in the private markets while also economically discriminating against multiple classes of non-wealthy investors.

New Commission Rules Approve an Alternative Non-FMT Approach

In August 2020, the Commission took a proactive and thoughtful approach to modernize and expand the accredited investor definition. It first designated that holders in good standing of the Series 7 (Licensed General Securities Representative), Series 65 (Licensed Investment Adviser Representative), and Series 82 (Licensed Private Securities Offerings Representative) licenses are now accredited. The three licenses, administered and enforced by FINRA, are primarily designed for individuals seeking a career in the financial services industry and are rarely acquired for the sole purpose of personal investing.¹⁶

However, the Commission also reserved the flexibility to approve educational institutions/certification programs for persons seeking to achieve accredited investor status. Accordingly, the Commission has openly invited the public to propose for the Commission's consideration additional certifications, designations, or credentials that satisfy the attributes set out in the new rule.¹⁷

The presumed underlying assumption of the new path is that persons must be able to objectively demonstrate "financial sophistication." As such, the question becomes twofold: 1) What level of financial understanding rises to the level of "financial sophistication"?; and 2) How should "financial sophistication" be objectively measured and certified?

Approving a retail-centric accredited investor certification program is a new area of exploration for the Commission, offering rewards and potential risks. An approved program offers an unprecedented opportunity to bring financial sophistication education into a pseudo-regulated environment upon which new and innovative programs can be offered to keep pace with the speed of the markets. An approved program also has the potential to serve as a compliance tool for the Commission in what is otherwise an opaque, self-reporting certification system.

On the side of caution, one might argue that the greatest risk for the Commission letting non-wealthy classes invest in startups is that persons who achieve certification might end up putting all their money into a single high-risk, speculative investment. However, foolish behavior is already possible (and permissible) under the "Sophisticated Investor" exemption in Rule 506 and the FMT. And, to bring some levity to the investor protection debate, non-wealthy investor classes are free to engage in high-risk, speculative behaviors that can lead to disastrous financial outcomes, including Meme Stocks, Options, Cryptocurrencies, Non-fungible Tokens (NFTs), and Sports Betting.

As a matter of public policy, the United States Government should want to see investors migrate from pure, non-value add speculation to making long-term, financially manageable bets on entrepreneurs creating the next generation of jobs, technologies, and systems that will power our collective future.

Interpreting “Financial Sophistication”

To interpret “financial sophistication” for measurement/certification of persons as accredited, it’s important to reflect that financial markets are constantly evolving complex systems, making it difficult for even academics to study and understand its behavior. Persons with considerable financial knowledge in one area of finance can be relatively clueless in other areas. What appears to be the most important factor for the Commission, as established in SEC v. Ralston Purina, is that persons must be able to demonstrate they understand enough about private offerings to “fend for themselves”.³

Second, given the complexities and risks inherent in private (and public) offerings, it’s important that policymakers not fall prey to “sophistication bias” by ignoring the simple in search of something more complex, innovative, or intellectually clever. Fundamental wealth-building principles have stood the test of time, understated by many, and that, if utilized, will protect any investor from a catastrophic mistake. The most effective behaviors are never complicated.

Third, when the Commission first designed the financial means test (35 years ago), very little was known or understood about the private markets. However, since that time, the Internet and social media have worked to bring entrepreneurship and startups into the public consciousness. A simple Google search on startups yields thousands of articles, including the pros and cons of investing in them. Hundreds of universities and local communities have introduced programs to encourage startups and entrepreneurship. And startup investing has become mainstream with television shows such as Shark Tank and Silicon Valley. At the same time, Netflix’s recent documentaries on the Fyre Festival and Theranos have worked to expose the unscrupulous side. Today, seventy-two percent (**72%**) of high schoolers want to

become entrepreneurs.¹⁸ And with the financial markets moving much faster than what’s being taught in high schools and universities, Gen Z is increasingly turning to social media for financial advice.¹⁹ If the Commission is serious about adding education and certification compliance as additional tools to protect investors, time is of the essence.

Considering the aforementioned, let’s consider the underlying assumptions supporting the FMT. The Commission references a study of Swedish households in support of the idea that wealthier households maintain a higher degree of “financial sophistication.” The study suggests “financial sophistication” is made up of three financial behaviors found in wealthier households: 1) They tend to be more diversified; 2) They tend not to become paralyzed by risk; and 3) They tend to hold onto over-performing stocks and sell underperforming stocks.¹¹

Of the three behaviors in the study, understanding and adhering to the principle of (1) Diversification is the single greatest protection for anyone investing in the private markets. The idiom “don’t put all your eggs into one basket” dates back to the 17th century and means that one should not invest all its resources in one investment (or even one area) as one can lose everything. Diversification is a critical component in the logic of venture capital and angel investing. While the principle of diversification might appear trite, measuring one’s cognition around diversification and ability to overcome biases to execute a diversified investment strategy is a different matter entirely and has important implications for the effectiveness of financial education/certification programs. Because diversification is the ultimate protection against being wiped out by a single investment, this must be the foundation of any financial education program.

Overcoming (2) Investment inertia is another core behavior that must be taught in a financial sophistication education program. Wealth can only be created by sacrificing the use of money today for a future benefit. Some of the most attractive investment opportunities occur in the private markets, and this is a long-term trend moving forward. Sophisticated investors should understand how future financial benefits are received today in the face of risk and sacrifices.

The third behavior, (3) Patience and Perseverance, are the keys to realizing returns over a lifetime of investing. Firstly, one must be patient as the timing is never predictable, and various assets (and asset classes) go through cycles of outperformance and underperformance. Secondly, one must be willing to sacrifice short-term gains for a time when other strategies are doing better in preparation for a greater harvest downstream.

There are two additional financial concepts investors must understand before participating in the private markets. The first is (4) How equity works from when an investment is made to the point at which the investment fails or succeeds. While studies indicate that most understand

the concept of debt and interest, the opposite is true of private equity. Anyone participating in the private markets must understand the realities of private equity, including the high risk of failure, its illiquid nature, and that most companies rely upon raising additional capital to reach higher levels of success.

The other is the (5) Investing Indicators successful investors consider when investing in early-stage companies. These factors include product, team, market size and timing, valuation, signals, and risks (Fig. 2). Financial projections are not included because, in early-stage companies, projections can rarely be relied upon until there are years of historical data backing up future assumptions. If anything, rosy financial projections are the tool that unscrupulous issuers use to lure purchasers into a deal.

By teaching the habitual cadence professional angel investors and venture capitalists run through when analyzing an investment, retail investors can develop thinking habits and gain confidence in their own assessments of an opportunity before investing and/or understanding the right questions to ask.

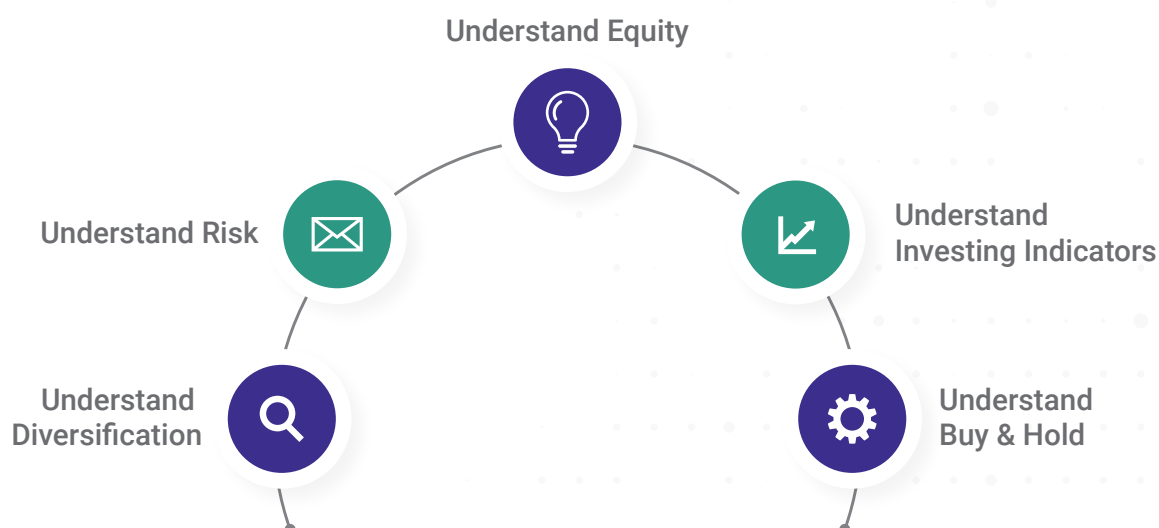


Figure 2. Five Factors of Financial Sophistication

A consideration previously noted by the Commission includes purchasers' access to resources and advisors that can help them understand an opportunity. Access to advisors is unquestionably helpful but not exclusive to the wealthy in the private markets. In fact, an "advisory and access" infrastructure is quickly growing in the private markets, offering assistance to thousands of individual investors in their effort to understand and access offerings. Examples include Angel Groups, AngelList, OurCrowd, Republic, WeFunder, Coinlist, Securitize, CartaX, etc. Moreover, this infrastructure is growing so rapidly that, in the future, individual retail investors will have little choice but to invest via market-making platforms

and syndicates, adding an important layer of protection that has not existed until the last few years.

In summary, this paper suggests that the Commission, when determining what level of financial sophistication is sufficient for certification, go beyond the sophistication level assumed in the FMT and adopt the Five Factors of Financial Sophistication. Anyone able to demonstrate a true understanding of the Five Factors of Financial Sophistication has acquired the ability to evaluate the risks and merits of investment opportunities in the private markets and, thus, can "fend for themselves."

Utilization of a Simulated Environment to Teach and Measure Financial Sophistication

The second question to be addressed by the Commission is the platform upon which persons would be certified for the Five Factors of Financial Sophistication. This paper contends that simulations offer a superior learning pedagogy to all other forms in which persons can experience deep learning so that they can "potentially" apply what they have learned at an unspecified time in the future. The ultimate outcome is for learners to experience the true nature of private investing without taking on personal risk. Simulations accomplish this objective.

Simulations are dynamic, simplified, and realistic models of business world environments that strive to imitate reality and make the complex more accessible.²⁰ In the case of private investing, simulations allow people to make realistic investments and understand the ramifications of those decisions. And while a competitive element is not required for simulations' effectiveness, persons are motivated by game-like learning atmospheres compared to traditional teaching and learning pedagogies.²¹

There are two important categories of learning value found in using simulations. The first is Cognitive Value - improved understanding and retention at the conceptual, procedural, and strategic levels.²² In this category, a simulation can (a) teach persons the terminology, concepts, and principles of private investing; (b) demonstrate the difficulty of making investment decisions in complex, realistic situations; and (c) enhance overall knowledge retention. Second is the Behavioral Value, in which simulations can (a) enable learners to implement core concepts by making decisions and experience the consequences of their actions and (b) improve a learners' analytical and decision-making skills.

Investing is a discipline that grows through repeated exposure to help improve skills and confidence. The problem is that the early lessons in the real investing world can be expensive and potentially catastrophic (i.e., paying the fool's tax). In contrast, a high-fidelity investing simulation enables a learner to experience private investing and learn critical lessons without paying such a high price.

Conclusion

The recent Accredited Investor Modernization Rules present an opportunity to expand the number of persons that can participate in the private markets in a way that potentially creates even greater protections than what exists today. An education/certification path offers the Commission an unprecedented opportunity to bring financial sophistication education into a pseudo-regulated environment upon which new and innovative programs can be offered to keep pace with the speed of the markets. An approved program also has the potential to serve as a compliance tool for the Commission in what is otherwise an opaque, self-reporting certification

system. The key questions are what level of financial sophistication is sufficient to achieve certification, and what platform is most effective at teaching financial sophistication? This paper suggests a new standard for Financial Sophistication (Five Factors of Financial Sophistication) that exceeds the assumed behaviors found under the Commission's current FMT. Additionally, simulations offer a learning pedagogy superior to all other forms in which persons can experience deep learning and understand the financial behaviors that makeup sophistication without taking on real financial risk.

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